We claim

1. A circuit for evaluating an acceleration sensor using the Ferraris principle comprising an inductive measuring head a moving Ferraris disk a main magnetic field, said sensor supply in an acceleration-dependent variable further comprising an additional DC magnetic field excitation circuit and a drive whereby the additional DC magnetic field acts in a compensating fashion on an eddy-current field, resulting from a relatively high rotational speed of the Ferraris disk.

2. The circuit according claim 1, wherein the additional DC magnetic field excitation circuit comprises a means for generating a direct current which is proportional to a control signal dependent on the rotational speed of the Ferraris disk and which flows through an operating coil which supplies the additional compensating DC magnetic field.

3. The circuit according to claim 2, characterized in that the operating coil is arranged in such a way that the additional DC magnetic field can be coupled in onto the Ferraris disk in the region of the inductive measuring head.

4. The circuit according to claim 2, wherein the operating coil can be used to amplify the main magnetic field between the inductive measuring head and the Ferraris disk in a fashion proportional to the control signal dependent on rotational speed.

5. The circuit according to claim 4, wherein a characteristic curve is used to relate the rotational speed of the Ferraris disk to the control signal.

6. The circuit claim 1, wherein the eddy-current field can be reduced in a fashion proportional to the control signal, dependent on rotational speed, by means of the operating coil.

7. The circuit according to claim 6, wherein the additional DC magnetic field excitation circuit forms a control loop with the accelerator sensor wherebby the control signal is dependent on rotational speed which can be generated from the acceleration-dependent variable of the sensor.

8. The circuit according to claim 7, wherein the control signal is generated by an integrator by means of integrating the acceleration-dependent variable.

9. The circuit according to claim 7, wherein the control signal is derived by a further magnetic field sensor from the magnetic field of the acceleration sensor, in particular from the field (Bmess) in the eddy.

10. The circuit according to claim 9, wherein the further magnetic field sensor is a Hall sensor or XMR sensor.

11. The circuit according to claim 9 wherein the eddy-current field is regulated to a prescribed value with the aid of the measured value of the further magnetic field sensor.

12. The circuit according to claim 9, wherein in addition to the further magnetic field sensor a detector coil is provided for detecting a voltage induced by the magnetic field of the acceleration sensor.

13. The circuit according to claim 9 wherein a variable, which is proportional to a voltage induced by the magnetic field of the acceleration sensor, is generated by a means for differentiation of said magnetic field.

14. The circuit according to claim 12 wherein a determined compensating direct current applies a low-frequency component of the acceleration, and the voltage induced by the magnetic field of the acceleration sensor, supplies a high-frequency component of the acceleration, and the two signals can be combined to form a broadband acceleration signal.

15. The circuit according to claim 13, wherein a determined compensating direct current applies a low-frequency component of the acceleration, and the voltage induced by the variable proportional to the voltage induced by the magnetic field of the acceleration sensor, supplies a high-frequency component of the accelerator and the two signals can be combined to form a broadband acceleration signal.

16. A circuit according to claim 9 wherein a broadband value proportional to the rotational speed can be determined by adding the measured value of the magnetic field sensor to the compensation direct current.

17. A numerically controlled machine having an acceleration sensor using the Ferraris principle, and an evaluation circuit according to claim 1.